

What is claimed is:

1. A computer-implemented method of classifying demand data for at least one allocation term, comprising using a computer to perform the steps of:

5 inputting the demand data, order data of the allocation term, and supply data; and
classifying the demand data into prioritized demand data according to the order data and the supply data.

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2. The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, further comprising the steps of:

5 combining and outputting the prioritized demand data; and
updating the supply data according to the prioritized demand data.

3. The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 1, wherein the classification step further comprises the steps of:

5 designating a portion of the demand data, belonging to the order data, as first priority demand data;

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designating a portion of the demand data, not belonging to the order data, as unfinished demand data and a portion of the supply data, not belonging to the order data, as unfinished supply data;

designating a portion of the unfinished demand
data, belonging to the unfinished supply
15 data, as second priority demand data; and
designating a portion of the unfinished demand
data, not belonging to the unfinished supply
data, as third priority demand data.

4. The computer-implemented method of
classifying demand data for at least one allocation
term as claimed in claim 1, wherein the demand data
has at least one demand amount, at least one demand
5 factory, and at least one demand manufacturing
technology, the demand factory and the demand
manufacturing technology corresponding to the demand
amount.

5. The computer-implemented method of
classifying demand data for at least one allocation
term as claimed in claim 1, wherein the order data has
at least one order amount, at least one order factory,
5 and at least one order manufacturing technology, the
order factory and the order manufacturing technology
corresponding to the order amount.

6. The computer-implemented method of
classifying demand data for at least one allocation
term as claimed in claim 1, wherein the supply data
has at least one supply amount, at least one supply
5 factory, at least one supply manufacturing technology,
and at least one supply term, the supply factory, the

supply manufacturing technology, and the supply term corresponding to the supply amount.

7. The computer-implemented method of classifying demand data for at least one allocation term as claimed in claim 3, wherein the step of designating the first priority demand data further
5 comprises the steps of:

comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the same order
10 manufacturing technology and demand manufacturing technology;

comparing the order data with the demand data according to the same order amount and demand amount, the different order factory and demand factory, and the same order
15 manufacturing technology and demand manufacturing technology; and

comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the different order
20 manufacturing technology and demand manufacturing technology.

8. The computer-implemented method of
classifying demand data for at least one allocation
term as claimed in claim 3, wherein the step of
designating the second priority demand data further
5 comprises the steps of:

comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the same
10 demand manufacturing technology and supply
manufacturing technology, and the same
supply term and allocation term;

comparing the unfinished demand data with the
unfinished supply data according to the same
15 demand amount and supply amount, the
different demand factory and supply factory,
the same demand manufacturing technology and
supply manufacturing technology, and the
same supply term and allocation term;

20 comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the same
demand manufacturing technology and supply
25 manufacturing technology, and the different
supply term and allocation term; and

comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the same
30 demand factory and supply factory, the
different demand manufacturing technology
and supply manufacturing technology, and the
same supply term and allocation term.

9. The computer-implemented method of
35 classifying demand data for at least one allocation
term as claimed in claim 3, wherein the step of
designating the third priority demand data further
comprises the steps of:

40 comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the same
45 supply term and allocation term;

comparing the unfinished demand data and the
unfinished supply data according to the same
demand amount and supply amount, the
different demand factory and supply factory,
50 the same demand manufacturing technology and
supply manufacturing technology, and the
same supply term and allocation term;

comparing the unfinished demand data and the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the different
supply term and allocation term; and
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60 comparing the unfinished demand data and the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the
different demand manufacturing technology
and supply manufacturing technology, and the
65 same supply term and allocation term.

10. A storage medium for storing a computer program providing a method of classifying demand data for an allocation term, the method comprising the steps of:

5 inputting the demand data, order data of the allocation term, and supply data; and
classifying the demand data into prioritized demand data according to the order data and the supply data.

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11. The storage medium as claimed in claim 10, further comprising the steps of:

combining and outputting the prioritized demand data; and
5 updating the supply data according to the prioritized demand data.

12. The storage medium as claimed in claim 10, wherein the classification step further comprises the steps of:

designating a portion of the demand data,
5 belonging to the order data, as first priority demand data;

designating a portion of the demand data, not belonging to the order data, as unfinished demand data and a portion of the supply data, not belonging to the order data, as
10 unfinished supply data;

designating a portion of the unfinished demand data, belonging to the unfinished supply data, as second priority demand data; and

15 designating a portion of the unfinished demand
 data, not belonging to the unfinished supply
 data, as third priority demand data.

 13. The storage medium as claimed in claim 10,
 wherein the demand data has at least one demand
 amount, at least one demand factory, and at least one
 demand manufacturing technology, the demand factory
5 and the demand manufacturing technology corresponding
 to the demand amount.

 14. The storage medium as claimed in claim 10,
 wherein the order data has at least one order amount,
 at least one order factory, and at least one order
 manufacturing technology, the order factory and the
5 order manufacturing technology corresponding to the
 order amount.

 15. The storage medium as claimed in claim 10,
 wherein the supply data has at least one supply
 amount, at least one supply factory, at least one
 supply manufacturing technology, and at least one
5 supply term, the supply factory, the supply
 manufacturing technology, and the supply term
 corresponding to the supply amount.

16. The storage medium as claimed in claim 12, wherein the step of designating the first priority demand data further comprises the steps of:

- 5 comparing the order data with the demand data
 according to the same order amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology;
- 10 comparing the order data with the demand data
 according to the same order amount and demand amount, the different order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology; and
- 15 comparing the order data with the demand data
 according to the same order amount and demand amount, the same order factory and demand factory, and the different order manufacturing technology and demand manufacturing technology.
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17. The storage medium as claimed in claim 12, wherein the step of designating the second priority demand data further comprises the steps of:

- 5 comparing the unfinished demand data with the
 unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term;
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comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the
different demand factory and supply factory,
15 the same demand manufacturing technology and
supply manufacturing technology, and the
same supply term and allocation term;
comparing the unfinished demand data with the
unfinished supply data according to the same
20 demand amount and supply amount, the same
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the different
supply term and allocation term; and
25 comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the
different demand manufacturing technology
30 and supply manufacturing technology, and the
same supply term and allocation term.

18. The storage medium as claimed in claim 12,
wherein the step of designating the third priority
demand data further comprises the steps of:

comparing the unfinished demand data with the
5 unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the same
10 supply term and allocation term;

comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the
different demand factory and supply factory,
15 the same demand manufacturing technology and
supply manufacturing technology, and the
same supply term and allocation term;
comparing the unfinished demand data with the
unfinished supply data according to the same
20 demand amount and supply amount, the same
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the different
supply term and allocation term; and
25 comparing the unfinished demand data with the
unfinished supply data according to the same
demand amount and supply amount, the same
demand factory and supply factory, the
different demand manufacturing technology
30 and supply manufacturing technology, and the
same supply term and allocation term.

19. A system of classifying demand data for an
allocation term, comprising:
a demand database, storing the demand data;
a supply database, storing supply data;
5 a customer interface, enabling input of order
data of the allocation term; and
a controller computer, paired to the demand
database, the supply database, and the
customer interface, classifying the demand
10 data into prioritized demand data according
to the order data and the supply data.

20. The system of classifying demand data for an allocation term as claimed in claim 19, wherein the
15 controller computer further combines and outputs the prioritized demand data and the controller computer further updates the supply data according to the prioritized demand data.

20 21. The system of classifying demand data for an allocation term as claimed in claim 19, wherein the controller computer further designates a portion of the demand data belonging to the order data as first priority demand data, designates a portion of the
25 demand data, not belonging to the order data, as unfinished demand data and a portion of the supply data, not belonging to the order data, as unfinished supply data, and further designates a portion of the unfinished demand data, belonging to the unfinished
30 supply data, as second priority demand data, and a portion of the unfinished demand data, not belonging to the unfinished supply data, as third priority demand data.

22. The system of classifying demand data for an allocation term as claimed in claim 19, wherein the demand data has at least one demand amount, at least one demand factory, and at least one demand
5 manufacturing technology, the demand factory and the demand manufacturing technology corresponding to the demand amount.

23. The system of classifying demand data for an allocation term as claimed in claim 19, wherein the order data has at least one order amount, at least one order factory, and at least one order manufacturing
5 technology, the order factory and the order manufacturing technology corresponding to the order amount.

24. The system of classifying demand data for an allocation term as claimed in claim 19, wherein the supply data has at least one supply amount, at least one supply factory, at least one supply manufacturing
5 technology, and at least one supply term, the supply factory, the supply manufacturing technology, and the supply term corresponding to the supply amount.

25. The system of classifying demand data for an allocation term as claimed in claim 21, wherein the controller computer further compares the order data with the demand data according to the same order
5 amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology, further compares the order data with the demand data according to the same order amount and demand amount,
10 the different order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology, and even further compares the order data with the demand data according to the same order amount and demand amount, the same order
15 factory and demand factory, and the different order

manufacturing technology and demand manufacturing technology.

26. The system of classifying demand data for an allocation term as claimed in claim 21, wherein the controller computer further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, and even further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term, and finally compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

27. The system of classifying demand data for an allocation term as claimed in claim 21, wherein the controller computer further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the different demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term, and further compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the same demand manufacturing technology and supply manufacturing technology, and the different supply term and allocation term, and finally compares the unfinished demand data with the unfinished supply data according to the same demand amount and supply amount, the same demand factory and supply factory, the different demand manufacturing technology and supply manufacturing technology, and the same supply term and allocation term.

28. A system of demand and capacity management,
comprising:

an allocation planning module to receive demand
data for one allocation term, order data of
5 the allocation term, and supply data;
a capacity model having route information for the
product, wherein the route information
records a plurality of tools; and
a capacity management module to reserve capacity
10 according to the demand data and the route
information.

29. The system as claimed in claim 28, wherein
the allocation planning module further comprises:

a data input module, inputting the demand data,
order data of the allocation term, and
5 supply data; and
a classifying module, classifying the demand data
into prioritized demand data according to
the order data and the supply data.

30. The system as claimed in claim 29, wherein
the allocation module further comprises:

a combining module, combining and outputting the
prioritized demand data; and
5 a updating module, updating the supply data
according to prioritized demand data.

31. The system as claimed in claim 29, wherein the classifying module further comprises:

- 5 a first priority designating module, designating a portion of the demand data, belonging to the order data, as first priority demand data
- 10 an unfinished data designating module, designating a portion of the demand data, not belonging to the order data, as unfinished demand data and designating a portion of the supply data, not belonging to the order data, as unfinished supply data;
- 15 a second priority designating module, designating a portion of the unfinished demand data, belonging to the unfinished supply data, as second priority demand data; and
- 20 a third priority designating module, designating a portion of the unfinished demand data, not belonging to the unfinished supply data, as third priority demand data.

32. The system as claimed in claim 28, wherein the demand data has at least one demand amount, at least one demand factory, and at least one demand manufacturing technology, the demand factory and the demand manufacturing technology corresponding to the demand amount.

33. The system as claimed in claim 28, wherein the order data has at least one order amount, at least one order factory, and at least one order manufacturing technology, the order factory and the
5 order manufacturing technology corresponding to the order amount.

34. The system as claimed in claim 28, wherein the supply data has at least one supply amount, at least one supply factory, at least one supply manufacturing technology, and at least one supply
5 term, the supply factory, the supply manufacturing technology, and the supply term corresponding to the supply amount.

35. The system as claimed in claim 31, wherein the first priority designating module further comprises:

- 5 a first-first comparing module, comparing the order data with the demand data according to the same order amount and demand amount, the same order factory and demand factory, and the same order manufacturing technology and demand manufacturing technology;
- 10 a second-first comparing module, comparing the order data with the demand data according to the same order amount and demand amount, the different order factory and demand factory, and the same order manufacturing technology
- 15 and demand manufacturing technology; and

20 a third-first comparing module, comparing the
order data with the demand data according to
the same order amount and demand amount, the
same order factory and demand factory, and
the different order manufacturing technology
and demand manufacturing technology.

36. The system as claimed in claim 31, wherein
the second priority designating module further
comprises:

5 a first-second comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand
amount and supply amount, the same demand
factory and supply factory, the same demand
manufacturing technology and supply
10 manufacturing technology, and the same
supply term and allocation term;

15 a second-second comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand
amount and supply amount, the different
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the same
supply term and allocation term;

20 a third-second comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand
amount and supply amount, the same demand
factory and supply factory, the same demand
25 manufacturing technology and supply

manufacturing technology, and the different
supply term and allocation term; and
a fourth-second comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand
amount and supply amount, the same demand
factory and supply factory, the different
demand manufacturing technology and supply
manufacturing technology, and the same
supply term and allocation term.

37. The system as claimed in claim 31, wherein
the third priority designating module further
comprises:

- a first-third comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand
amount and supply amount, the same demand
factory and supply factory, the same demand
manufacturing technology and supply
manufacturing technology, and the same
supply term and allocation term;
- a second-third comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand
amount and supply amount, the different
demand factory and supply factory, the same
demand manufacturing technology and supply
manufacturing technology, and the same
supply term and allocation term;
- a third-third comparing module, comparing the
unfinished demand data with the unfinished
supply data according to the same demand

amount and supply amount, the same demand
factory and supply factory, the same demand
25 manufacturing technology and supply
manufacturing technology, and the different
supply term and allocation term; and
a fourth-third comparing module, comparing the
unfinished demand data with the unfinished
30 supply data according to the same demand
amount and supply amount, the same demand
factory and supply factory, the different
demand manufacturing technology and supply
manufacturing technology, and the same
35 supply term and allocation term.

38. The computer-implemented method as claimed
in claim 1, wherein the allocation term is one month.

39. The computer-implemented method as claimed
in claim 1, wherein the method classifies the demand
data for a plurality of allocation terms.

40. The storage medium as claimed in claim 10,
wherein the computer program provides a method of
classifying data for a plurality of allocation terms.

41. The system as claimed in claim 31, wherein
the allocation term is one month.